

CLAIMS

What is claimed is:

1. A method for automatic relevance-based preloading data to a computing device, comprising:
 - identifying any one or more of persons or current scheduled tasks prior to the occurrence of the tasks;
 - analyzing the relevance of stored data to any one or more of the current scheduled tasks or persons;
 - sorting the stored data based upon the relevance to any one or more of the current scheduled tasks or persons;
 - setting a predetermined relevance threshold; and
 - preloading selected sorted data to the computing device with relevance higher than the relevance threshold.
2. The method of claim 1, wherein the step of analyzing the relevance includes estimating a proximity of the stored data items to any one or more of persons or current scheduled tasks, based on one or more of three proximity measures: distance, time, association.
3. The method of claim 2, wherein the step of analyzing the relevance further includes combining three proximity measures into a single relevance score.
4. The method of claim 1, wherein the step of analyzing the relevance includes analyzing the proximity of information items to any one or more of the current scheduled tasks or persons.
5. The method of claim 4, wherein the step of analyzing the proximity of information items includes measuring proximity in terms of distance, time, and/or association.

6. The method of claim 1, wherein preloading selected sorted data to the computing device includes preloading the data to a communication device.

7. The method of claim 6, wherein preloading the data to the communication device includes preloading the data to a mobile telephone.

8. The method of claim 6, wherein preloading the data to the communication device includes preloading the data to a personal digital assistant (PDA) device.

9. The method of claim 1, wherein the step of preloading the data includes preloading the data to a personal computer.

10. The method of claim 1, wherein identifying any one or more of current scheduled tasks or persons includes identifying events scheduled in a user's calendar, locations, and/or time frames.

11. A system for automatic relevance-based preloading information items to a computing device, comprising:

- a proximity estimator that determines a proximity of the information items to a user's task based on one or more of three proximity measures: distance, time, association;
- a relevance estimator that combines at least two of the three proximity measures into a single relevance score;
- an information retriever that retrieves information items with a relevance score higher than a predetermined threshold relevance; and
- a device loader that processes the information items retrieved by the information retriever and preloads the retrieved information items to the computing device.

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12. The system of claim 11, further including an information catalog that contains a list of the information items to which a user has access.
13. The system of claim 12, wherein the relevance estimator combines at least two of the three proximity measures into a single relevance score by weighting each of the at least two proximity measures.
14. The system of claim 12, wherein the relevance estimator combines at least two of the three proximity measures into a single relevance score by computing a geometric mean of the at least two proximity measures.
15. The system of claim 11, wherein the distance proximity measure includes a difference between a user's planned location for a given task and a location of a scheduled task.
16. The system of claim 11, wherein the time proximity measure denotes immediacy of user's tasks.
17. The system of claim 11, wherein the association proximity measure denotes persons and contacts associated with a location and purpose of a given task.
18. The system of claim 11, further including a location tracker that determines the user's location.
19. A computer software program for automatic relevance-based preloading information items to a computing device, comprising:
means for determining a proximity of the information items to a user's task based on one or more of three proximity measures: distance, time, association;

means for combining at least two of the three proximity measures into a single relevance score;

means for retrieving information items with a relevance score higher than a predetermined threshold relevance; and

means for processing the information items retrieved by the retrieving means and preloading the retrieved information items to the computing device.

20. The computer software program of claim 19, wherein the proximity determining means combines at least two of the three proximity measures into a single relevance score.